

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Thermo Gauge Instruments

#### West Virginia Manufacturing Extension Partnership

#### Building Growth at Thermo Gauge

##### Client Profile:

Thermo Gauge Instruments Inc. manufactures and supports the windowless graphite tube blackbody furnaces used in many calibration, metrology and research facilities, including government agencies and private manufacturers of temperature measurement and control equipment. A precision blackbody is a controlled source of thermal radiation used to calibrate infrared radiation thermometers (pyrometers), thermal imagers and radiation heat flux gauges and radiometers. Thermo Gauge employs 5 people at its facility in Fort Ashby, West Virginia.

##### Situation:

Thermo Gauge's products remain viable for many years due to their excellent construction and design. This has allowed the company to provide a second line of business focused on support through upgrades, replacement parts, and repair. As Thermo Gauge has continued to innovate, new models and product lines have been developed, offering clients more choice regarding operating requirements, precision and product cost. Those factors have contributed to increased demand for the product; however, the existing manufacturing facility would not support increased production. Thermo Gauge's owner, Chris Liller, decided to build a new facility that would provide adequate space for current and future manufacturing demands. The company contacted the West Virginia Manufacturing Extension Partnership (WVMEP), a NIST MEP network affiliate, for help.

##### Solution:

WVMEP consultants provided guidance on design, physical layout and safety features of the new facility. The project consisted of the following elements: 1) process flow analysis, which examined and mapped each step of the manufacturing process to determine material moves, work in process locations and amounts, and equipment positions; 2) safety evaluation which identified potential safety problems with layout and design of the facility; and 3) potential space utilization needs which determined how much floor space was needed for equipment placement, material storage, office space, and material and product movement.

Three possible physical designs for the new building, each having specific benefits related to product and workflows, future expansion, and construction costs were presented, allowing Liller to evaluate his needs against the benefit of each design and make an informed selection. A detailed safety evaluation of the designs pointed out OSHA requirements relating to equipment placement, equipment operation, building egress, personnel safety and other items. A detailed analysis of the value stream and processes within the manufacturing operations provided information needed in selecting the final design and layout of the new facility. A total design package assisted Liller in acquiring quotes from building suppliers and construction companies. As a result of the project, Thermo Gauge's new facility is expected to be completed by January 2009.

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#### **Results:**

- \* Invested \$750,000 in new facility.
- \* Created 2 new jobs.
- \* Anticipated creation of 3 new jobs.

#### **Testimonial:**

"WVMEP was able to provide meaningful assistance during the planning phase of my project which helped solidify the building plans and site layout. It has been a great pleasure to work with WVMEP and I am looking forward to working with WVMEP for safety training, ISO-9000 certification and assistance with OSHA compliance. I feel WVMEP is a greatly underutilized resource in West Virginia, and I always take every opportunity to make businesses aware of the great resource available and the great people that work with WVMEP."

Chris Liller, Owner